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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,606	07/17/2002	Shusaku Okamoto	5077-000092	6923

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EXAMINER	
MACKOWEY, ANTHONY M	

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/088,606	OKAMOTO ET AL.	
	Examiner	Art Unit	
	Anthony Mackowey	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-12 and 15* is/are pending in the application.

4a) Of the above claim(s) *1 and 7-12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-5* is/are rejected.

7)☒ Claim(s) *15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 July 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 20, 2006 has been entered.

Response to Arguments

Applicant's arguments filed July 20, 2006 have been fully considered but they are not persuasive.

Applicant's arguments with regard to claim 2, assert that that Ohashi reference does not teach, "generating a synthesized image." The examiner respectfully disagrees. In the final rejection of claim 2 (page 5), the examiner's citations included Fig. 25 and col. 12, lines 7-11, which clearly disclose a composite adapter connected to the image capture unit to produce a composite image of the captured images, thus the Ohashi reference does teach generating a synthesized image.

Applicant's arguments with regard to claim 4 are not persuasive because they appear to be drawn to figures not cited by the examiner in the final rejection of claim 4. Applicant has submitted Fig. A as demonstrating the image capturing a side of the vehicle by a camera as shown in Figs. 8-11 of Ohashi. Examiner notes that Fig. A is not a figure from the Ohashi

reference. In the final Office Action the examiner cited several figures in the rejection of claim 2 demonstrating individual cameras and then a combination of these cameras (Fig. 23). With regard to claim 4 (which depended from 2), the Examiner cited Fig.16, clearly showing the images captured by the cameras of claim 2 had linearity. However, the Examiner did not cite figures 8-11 or the corresponding text in the rejection of claims 2 or 4. Applicant's arguments are based upon figures demonstrating alternative camera mounting positions not relied upon by the examiner in the rejection of claims 2 or 4 and Fig. A is not a direct teaching from the Ohashi reference, therefore the arguments are not found persuasive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,580,373 to Ohashi in view of USPN 6,259,359 to Fujinami et al. (Fujinami).

Regarding claim 2, Ohashi discloses a monitoring system (col. 1, lines 5-10) comprising:

one or more cameras for capturing surrounding state of a vehicle (Figs 12-15, 22-25; col. 8, lines 51-67; col. 10, line 18 – col. 13, line 42, Ohashi teaches single and multiple cameras mounted on a vehicle for capturing the area around a vehicle); and

an image processing unit for receiving, as an input, a camera image of said one or more cameras and generating, from said camera image, a synthesized image to be displayed on a display device (Fig. 4, 24 and 25; col. 6, lines 47-65; col. 10, line 64 – col. 13, line 42),

wherein said image processing unit has a mode for displaying a synthesized image including grounding portions of at least both front and rear tires of left or right side of the vehicle (Figs. 2, 3, 6, 7, 16 and 23; col. 6, lines 3-39; col. 8, lines 28-39 and 60-67; col. 10, lines 18-63, Ohashi teaches cameras mounted toward the front or rear of the vehicle for capturing a grounding portion and front or rear tires of the left or right side of the vehicle. Ohashi further discloses the use of the cameras together which would clearly obtain images of the grounding portions of both the front and rear tires of the left or right side of the vehicle.).

Fig. 16 of Ohashi clearly shows in an enlarged view of the nearby area of vehicle including a tire of the vehicle but Ohashi does not explicitly recite displaying a synthesized image in which an enlargement ratio is relatively higher in a nearby area of the vehicle including a grounding portion of both front and rear tires of the left or right side of the vehicle than in a peripheral area of the vehicle. However, Fujinami teaches vehicle monitoring system that enlarges the lower portion (nearby area) of the image (Fig. 3; col. 2, lines 51-67; col. 3, lines 34-37; col. 8, lines 12-23; col. 9, lines 35-45).

The teachings of Ohashi and Fujinami are combinable because they are both concerned with image processing and vehicle monitoring systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the system taught by Ohashi to include an enlargement ratio which is relatively higher in a nearby area of the vehicle as taught by Fujinami in order to improve visibility in the nearby area (Fujinami, col. 8, lines 12-23).

Regarding claim 3, Fujinami further teaches the enlargement ratio becomes lower in a direction from said nearby area of the vehicle to said peripheral area of the vehicle in said synthesized image (Fig. 3; col. 9, lines 35-45, Fujinami teaches continuously changing the refraction index from the upper portion to the bottom, thus portions of the upper portion (peripheral area) are enlarged less than those in the bottom (nearby area).).

Regarding claim 4, said image processing unit generates said synthesized image in such a manner that an area along a side surface of the vehicle has linearity (Fig. 16, It can be clearly seen that the displayed area along the side surface of the vehicle is straight without curving (has linearity).).

Regarding claim 5, at least one camera out of said one or more cameras is installed to have a camera range at least including part of a body side surface and part of a front tire (Fig. 16; col. 6, lines 33-39; col. 8, lines 60-67, Ohashi teaches capturing an image of the front tire. It can clearly be seen the displayed image contains part of the body side surface of the car and the front tire.), and

said image processing unit generates, from a camera image of said at least one camera, said synthesized image in such a manner that said body side surface and said front tire are imaged therein (Fig. 16; col. 6, lines 33-39; col. 8, lines 60-67, Ohashi teaches capturing an image of the front tire. It can clearly be seen the displayed image contains part of the body side surface of the car and the front tire.).

Allowable Subject Matter

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 15 recites, "wherein said image processing unit projects said camera image onto a bowl model and generates said synthesized image by viewing said projected camera image from a virtual viewpoint."

The above features, as explicitly recited, and in combination with the other elements of the base claim are neither disclosed nor suggested by the closest prior art of record. The closest prior art of record with regard to claim 15 is USPN 7,034,861 to Okada et al. having the same assignee. Okada discloses projecting a camera image onto a spherical model (col. 3, lines 9-26), however, Okada does not teach this projection onto the spherical model results in an enlargement ratio becoming relatively higher in a nearby area than in a peripheral area in the synthesized image. Applicant presented similar arguments with regard to claim 15 in view of the Ohashi and Fujinami references on page 9 of amendment filed July 20, 2006.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 5,999,660 to Zorin et al.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Mackowey whose telephone number is (571) 272-7425. The examiner can normally be reached on M-F 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AM
8/30/06

ANDREW W. JOHNS
PRIMARY EXAMINER